

AMENDMENT

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Original) A method for measuring neurotransmitter transport in a cell or cellular extract comprising:
 - a) providing a cell that expresses a neurotransmitter transporter or a cellular extract that comprises a neurotransmitter transporter;
 - b) exposing the cell or the extract to ASP⁺; and
 - c) measuring the transport of ASP⁺;thereby measuring the transport of the neurotransmitter in the cell.
2. (Original) The method of claim 1, wherein measuring transport further comprises measuring the kinetics of the neurotransmitter transporter.
3. (Original) The method of claim 1, wherein measuring transport is in real time.
4. (Original) The method of claim 1, wherein measuring the transport of ASP⁺ is by fluorescence microscopy or using a fluorescent plate reader.
5. (Original) The method of claim 1, wherein the time resolution of measuring transport is 1 hour to 50 milliseconds.
6. (Original) The method of claim 1, wherein the cell is a neuronal cell.
7. (Original) The method of claim 1, wherein the cell is a blood platelet.

8. (Original) The method of claim 1, wherein the cell is a placental cell.
9. (Original) The method of claim 1, wherein the cell is a trophoblast.
10. (Original) The method of claim 1, wherein the neurotransmitter transporter is an endogenously expressed transporter.
11. (Original) The method of claim 1, wherein the neurotransmitter transporter is an exogenously expressed transporter.
12. (Original) The method of claim 1, wherein the neurotransmitter transporter is a monoamine neurotransmitter transporter.
13. (Original) The method of claim 12, wherein the monoamine neurotransmitter transporter is a norepinephrine transporter.
14. (Original) The method of claim 12, wherein the monoamine neurotransmitter transporter is an epinephrine transporter.
15. (Original) The method of claim 12, wherein the monoamine neurotransmitter transporter is a dopamine transporter.
16. (Original) The method of claim 12, wherein the monoamine neurotransmitter transporter is a serotonin transporter.
17. (Original) A method of screening for agents that can modulate the activity of a neurotransmitter transporter comprising:
 - a) providing a cell or cell extract that expresses a neurotransmitter transporter;
 - b) exposing said cell or cell extract to an agent that is a candidate neurotransmitter transporter modulator;

- c) exposing the cell or cell extract to ASP⁺;
- d) measuring the transport of ASP⁺; and
- e) comparing the transport of ASP⁺ in said cell to the transport of ASP⁺ in a cell or cell extract that has not been exposed to the agent;

thereby determining if the agent is a modulator of activity of said neurotransmitter transporter.

- 18. (Original) The method of claim 17, further comprising the use of a fluorescent plate reader to provide high-throughput screening of agents.
- 19. (Original) The method of claim 17, wherein the neurotransmitter transporter is a norepinephrine transporter, an epinephrine transporter, a dopamine transporter or a serotonin transporter.
- 20. (Withdrawn) The method of claim 17, wherein said method is an *in vivo* method.
- 21. (Original) The method of claim 17, wherein said method is an *in vitro* method.
- 22. (Original) The method of claim 17, wherein measuring the transport of ASP⁺ further comprises adding a quencher and measuring the polarization of light in the presence and absence of the agent.
- 23-24. (Canceled)